

Amphenol

CRT COMMANDER Tester & Rejuvenator



Foolproof tests of color CRTs are achieved by the use of manufacturers' recommended test procedures. Emission is measured relative to identical cutoff conditions and there is an indication of the relative balance of the three guns. The CRT Commander is both accurate and obsolescence-proof. First, it automatically takes into consideration the different efficiencies of various color and B & W tubes. Second, an ingeniously designed assembly with five sockets does the work of seven to permit convenient testing of the latest type tubes including the 23" rectangular color and the low G-2 voltage 110° tubes. In addition to the dynamic type cutoff-emission test, the 855 tests for life expectancy, gas, leakage, shorts and opens.

The dynamic test is achieved by triode connecting the elements of the tube under test rather than tying all the grids together to form a simple diode. The result is a meter reading indicative of the tube's contrast capabilities. In the case of color tubes, the three contrast readings represent the relative balance.

The continuously variable G-2 voltage permits the testing of low G-2 voltage tubes and, in addition, permits color tubes to be tested the way they are normally used in the TV receiver. In actual use G-2 voltage will be varied to set the tube to cut-off under a fixed bias condition. This is exactly what happens in the test.

An exclusive built-in voltmeter with D'Arsonval movement incorporating a burnout-proof meter circuit insures accurate, definitive readings and protection against overload. All dynamic type gun tests are meter-measured for greatest accuracy. The meter can also be used as an additional high-voltage 20,000 ohms-per-volt voltmeter in the field, or in the shop. Screen, plate and B+ distribution can be measured with a direct probe on the 0 to 1000-volt scale. High voltage and 2nd anode voltage regulation can be measured with a high voltage probe. The calibrated meter performs quantitative tests, not just the general "good", "weak" and "replace" tests used in some other instruments. There's no guesswork!

As a rejuvenator, the CRT Commander uses an improved rejuvenation method to give new life to weak or seemingly "dead" tubes. It revitalizes the cathode, exposing fresh electron emissive material to restore emission to proper operating levels. It also enlarges the grid aperture to allow a greater flow of electrons. Each gun is treated separately under controlled conditions to achieve balance in a color CRT. Repairs tubes by burning out shorts, welding open connections.

Filament voltages are present for all the known tube types and additional voltage taps are provided for future releases. A 3-position filament boost circuit selects normal filament voltage, or a 35% increase in the middle position; an 85% increase in high position to rejuvenate difficult tubes.

Model 855 Features

TEST ALL CRTs—Even the new 110° 23 inch tubes.

BUILT IN VOLTMETER—Two ranges: 0 to 1000 volts, 0 to 58K volts, 20,000 ohm/per volt.

SOLID STATE CONSTRUCTION—Rugged and reliable.

GREATER RANGE OF FILAMENT VOLTAGE—11 steps from 2.2V to 20V.

DYNAMIC ELECTRON GUN TEST—Grid cut off as low as 1 μ Amp. Gas test 1 megohm sensitivity.

IMPROVED REJUVENATION METHOD—Separate treatment of each gun, as required to obtain balance in Color CRT.

COMPACT & LIGHTWEIGHT—Size 9" x 12" x 5½". Weight: 7½ lbs.

INFORMATION ON ALL CRTs—Chart covers all existing CRTs, will be updated as required.

ELIMINATES ADAPTERS—Five sockets do the work of 7.

Ordering information: Model 855, \$89.95 net.

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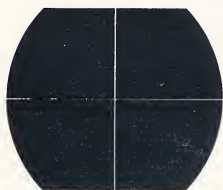


COLOR COMMANDER

**The most accurate
color TV alignment—
in the shop, or home
—in 40% less time**

For the first time, precision adjustment is available for critical horizontal and vertical linearity settings, fine tuning, static and dynamic convergence, and all color adjustments. Crystal controlled and silicon solid-state construction insures stable and reliable operation. Small and lightweight, only 3½ lbs., the Color Commander is housed in an attractive black leatherette case (5" x 9" x 4") which will easily fit in a tube caddy. Battery powered, consumes 1/3 watt, which is less than a standard flash-light lamp. An optional AC power supply fits into the battery compartment. A gun killer is conveniently built into the cover of the case. New test patterns make the Color Commander the easiest and fastest color test instrument available.

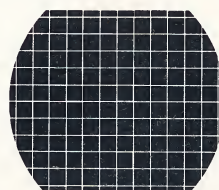
THESE NEW PATTERNS MAKE ACCURATE ALIGNMENT EASY AND FAST



1 CENTERING
PATTERN



2 STATIC
CONVERGENCE



3 20 x 15
CROSSHATCH



4 THREE BAR
COLOR PATTERN



Easiest and Fastest to Use

Small and Lightweight 3 1/2 lbs.

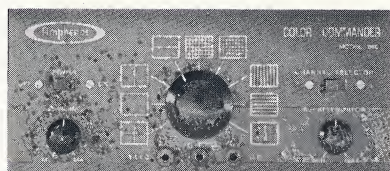
Stable and Reliable

Solid-State and Crystal Controlled

Battery or AC Powered

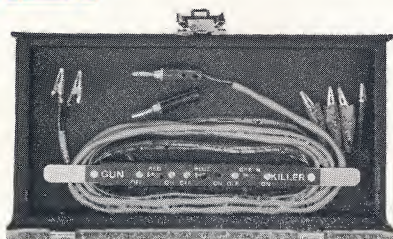
Extremely Fine Line or Dot Patterns

Two pre-set channels



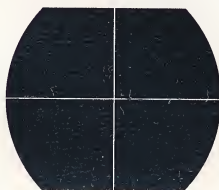
CONTROLS

1. Channel selector—channels 3 and 4 pre-set at factory.
2. Test pattern selector.
3. RF attenuator. Simulates weak, medium and strong station signals.
4. Chroma Attenuator—This control shows the ability of the TV set to sync on large and small color signals and for setting the color killer control.



ORDERING INFORMATION:
Available from Amphenol Distributors.
Model No. 860, \$149.95. Net
Optional AC Power Supply—
Model No. 860-2, \$19.95 Net

NEW TEST PATTERN INNOVATIONS



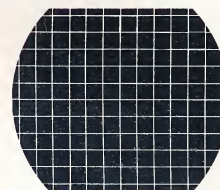
CENTERING

Centering Pattern: The single crossbar is faster and more accurate for properly centering the raster than using the usual crosshatch pattern. Saves time normally spent in correcting misconvergence resulting from initial centering errors. The single crossbar pattern is available only in the Color Commander.



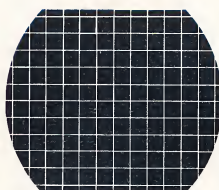
STATIC CONVERGENCE

Now, only one dot to accurately set static convergence. A single dot means that there are no other distracting dots, and since the single dot is in the exact center of the raster, accuracy (which is a must in this adjustment) is assured.



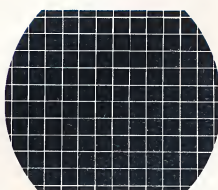
FINE TUNING

Still another Amphenol exclusive. Setting the fine tuning control is accomplished by adjusting the tuner until both the horizontal and vertical lines are of equal intensity. It is no longer necessary to approximate by setting for maximum sound.



DYNAMIC CONVERGENCE

Amphenol's 20 x 15 crosshatch pattern with fine continuous horizontal and vertical line allows fast accurate dynamic convergence. Lines are just one raster scanning line wide.



LINEARITY

Only the Color Commander has a crosshatch pattern with a 4 to 3 aspect ratio (20 vertical and 15 horizontal lines) which allows fast and accurate adjustment of horizontal and vertical linearity by simply adjusting linearity controls until pattern forms perfect squares.



3-BAR COLOR PATTERN

Amphenol has a color pattern which has eliminated all but the 3 bars used for color alignment. Fast and accurate color adjustments can be made with or without a scope. Pattern is crystal controlled.

OTHER TEST PATTERNS: In addition to the patterns shown above, additional tests can be made with the full dot, single vertical bar, single horizontal bar, multi-horizontal bar, and multi-vertical bar patterns.



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